



Valencia

ENVIRONMENTAL AND HABITATS RISK ASSESSMENT

Shelford MRF – Permit Variation Application

EPR/XP3434HX

Shelford Landfill
Shelford Farm Estate
Shalloak Road
Canterbury
Kent
CT2 0PU

September 2025

1. Introduction

Shelford Landfill and MRF operates under environmental permit EPR/XP3434HX.

Permit variation EPR/XP3434HX/V013 was granted on 10th July 2024, which added a Material Recycling Facility (MRF) to the permit, including a 5.4 A(1)(b)(ii) pre-treatment of waste for incineration or co-incineration and a physical treatment of non-hazardous waste operation. The combined limit for these activities was 250,000 tonnes per annum.

The waste treatment process separates non-combustible material through shredding and mechanical and manual separation. The combustible fractions will be sent off site for energy recovery as refuse derived fuel (RDF). Some residual waste, such as grit, glass and bricks will be used on site to maintain roads and for landfill cover.

The ambition of the MRF is to move waste further up the Waste Hierarchy, and recover recyclable wastes which would otherwise be destined for landfilling.

Since the MRF has commenced operation and wastes have been processed, it has become increasingly apparent that the MRF can process more waste than first anticipated. The permit variation seeks to increase the annual throughput of non-hazardous and inert waste to be processed through the MRF from 250,000 to 500,000 tonnes per annum.

There are no proposed changes to the types of waste to be accepted to the MRF, nor the waste treatment processes and techniques. There are also no proposed changes to the landfill.

This Environmental and Habitats Risk Assessment has been prepared as part of an environmental permit variation application for the Material Recycling Facility (MRF)

2. Site Setting and Sensitive Receptors

2.1. Site Setting

Shelford Landfill Site is located on Shelford Farm Estate off Shalloak Road, approximately 2.5 miles northeast of Canterbury, Kent. The MRF is located to the south of the landfill.

The land surrounding the site is mixed in use. The landfill area extends north from the proposed location of the MRF building, with the land beyond being predominantly agriculture and interspersed woodland northwest, north and northeast.

Sensitive Receptors

The nearest residential properties are 2 houses located approximately 200m east of the MRF on Shalloak road. 550m to the northeast, there are several properties at Broad Oak Lodge Farm and a mobile home park approximately 750m northeast within Den Grove Wood.

Land use to the south is mixed residential, commercial and industrial, with large areas of parkland and woodland. A car dealership is the nearest commercial receptor to the site, bound by the landfill's permit boundary on all but its south side, sharing the site entrance road.

There are a number of residential properties are located approximately 630m south of the proposed MRF on Vauxhall Avenue, within the wider area of the Canterbury Retail Park, which houses an array of retail and industrial units. There are further residential properties to the south Sturry Road, with and adjacent Community Park and play space 750m southeast of the proposed facility. Further residential areas within proximity to the proposed MRF include Hales Place, Broadoak, Sturry Cottages and Fordwich.

The table below provides a summary of receptors within proximity to the site.

Receptor	Receptor Type	Approximate Distance from Site	Direction from Site
Motorline Car Dealership	Commercial	100m	East
CVS Canterbury and Canterbury Audi car dealerships	Commercial	150m	South
6 Shalloak Road	Residential	200m	East
Caravan Site	Residential	250m	South
Retail Park (Vauxhall Road)	Commercial	350m	South
Canterbury Wastewater Treatment Works	Industrial	450m	Southeast
Canterbury North 400kV Substation	Industrial	550m	Southwest
Broad Oak Lodge Farm	Residential	550m	Northeast
Vauxhall Avenue and Vauxhall Crescent	Residential	600m	South
Businesses on Broad Oak Road	Commercial	600m	Southwest
Retail Park (Marshwood Close)	Commercial	700m	Southwest
Sturry Road Allotments	Leisure	700m	South
Sturry Road (A28)	Residential	700m	South
Caravan Park	Residential	750m	Northeast
Maytree Canterbury Garden Centre	Commercial	800m	Southeast
Bicknor Close	Residential	800m	Southwest
Kilndown Gardens	Residential	800m	Southwest
Field Avenue	Residential	850m	South
Reed Avenue	Residential	850m	South
Sturry Road Community Park	Leisure	850m	Southeast
22-38 Shalloak Road	Residential	850m	Northeast
Headcorn Drive	Residential	850m	Southwest
Kemsing Gardens	Residential	850m	Southwest
Halstead Close	Residential	900m	Southwest
Westerham Close	Residential	900m	Southwest
Hunton Gardens	Residential	900m	West
East Street	Residential	900m	South
Sandhurst Close	Residential	950m	Southwest
Goudhurst Close	Residential	950m	West
Junior King's School Sports Facility	Leisure/ School	1km	East

2.2. Habitat Receptors

There are five European sites within 10km of the proposed MRF location, the nearest of which is Stodmarsh located approximately 1.9km east, designated as a SAC, SPA and Ramsar, as well as a SSSI (extending slightly west to within 1.7km of the MRF). At its eastern extent, over 5km away, Stodmarsh is also designated as an NNR. The remaining four European Sites are located over 4km away from the site at Blean Complex (SAC), The Swale (Ramsar and SPA), Tankerton Slopes and Swalecliffe (SAC), and Thanet Coast & Sandwich Bay (Ramsar and SPA). All of the sites are at a great enough distance that they are not considered to be especially vulnerable to the MRF activity, with any potential impacts mitigated by the distance.

There are four SSSIs within 2km of the site, including Stodmarsh. The nearest is West Blean and Thornden Woods SSSI which lies adjacent to the landfill north and north-eastern permit boundary, with its closest point located at around 400m from the proposed MRF; the site is also designated as an ancient woodland throughout its extent. Chequer's Wood and Old Park SSSI is located 1.2km southeast of site, containing areas of Ancient Woodland at Chequers Wood and Scotland Hills. Sturry Pits SSSI is located 1.3km east of the site, however is considered of geological interest, therefore not vulnerable to the activity.

Additional areas of ancient woodland are located at Dengrove Wood, Hoards Wood and Kemberland wood, Middle Shaw, Brickhouse Wood and an unnamed wood on Canterbury Hill road (2km west).

The Great Stour, Ashford to Fordwich Local Wildlife Site (LWS) is located 170m south of the proposed facility and is the nearest designated site to the proposed MRF. One further LWS is located within 2km of the site at Little Hall and Kemberland Woods and Pasture.

There are also a number of protected habitats within 2km of the site, which are also listed in the table below.

Habitat	Designation	Distance from Site	Direction from Site
Woods in Southern extent of permit boundary	Priority Habitat Inventory - Deciduous Woodland	Adjacent	
Great Stour, Ashford to Fordwich Local Wildlife Site	Local Wildlife Site	170m	South
Great Stour	River	250m	South
West Blean and Thornden Woods	SSSI, Ancient Woodland, Priority Habitat Inventory - Deciduous Woodland	400m	East
Woods adjacent to Canterbury City Park and Ride	Priority Habitat Inventory - Deciduous Woodland	700m	Southeast
Dengrove Wood	Ancient Woodland, Priority Habitat Inventory - Deciduous Woodland	750m	Northeast
Brickhouse Wood	Ancient Woodland, Priority Habitat Inventory - Deciduous Woodland	780m	Northwest
Little Hall and Kemberland Woods and Pasture	Local Wildlife Site, Priority Habitat Inventory - Deciduous Woodland	800m	Northwest
Chequer's Wood and Old Park	SSSI, ancient woodland	1.2km	Southeast
Middle Shaw	Ancient woodland	1.7km	North
Stodmarsh	SAC, SPA, Ramsar, SSSI and NNR	1.9km	East
Hoards Wood	Ancient woodland	2km	Northeast

3. Risk Assessment

- 3.1. The main risk from the increase in throughput for the MRF to the identified receptors will be emissions of dust, odour, litter and noise. The activities will be undertaken with environmental protection as a priority, ensuring that effective control measures are in place to prevent harm to human health and the local environment and to mitigate the risks from the proposed activities.
- 3.2. The table below identifies the potential environmental risks that may arise from operations at the MRF and considers which receptors may be impacted by the risk, and pathways. The risk assessment shows how these risks are minimised by preventing the hazard at source or by providing measures to break the pathway and prevent pollution migrating towards receptors.
- 3.3. The activities will be undertaken with environmental protection as a priority, in accordance with Best Available Techniques and utilising Appropriate Measures, ensuring that effective control measures are in place to prevent harm to human health and the local environment. A dedicated building will house the activities, ensuring effective prevention of pollution emissions of dust, litter, noise and odour.
- 3.4. Waste will be dealt with on a first-in, first-out basis and will be turned round within 72 hours to minimise the risks of odour and vermin. The site will be kept tidy and will be inspected on a daily basis to make sure that no pollution is detected. Any significant emissions of dust, odour, litter or noise will be investigated and remedied.
- 3.5. Staff will be trained to understand the potential environmental risks associated with the site and their role in managing those risks. An induction will also be provided for contractors, so that they are aware of any environmental requirements.

HAZARD	RECEPTOR	PATHWAY	INITIAL RISK RATING	CONSEQUENCE	CONTROL MEASURES	RESIDUAL RISK WITH CONTROL MEASURES IN PLACE
Odour	Local residents, local businesses	Airbourne	Medium	Nuisance	- The increase in annual waste throughput to the MRF will be managed in the same manner and principals as the MRF currently operates to. - Higher turn over will reduce the residence time of wastes, thus creating a shorter time period for wastes to potentially become odorous. - Waste will continue to be stored and treated inside the MRF building. The building benefits from fast acting roller shutter doors, limiting escape of odour. Doors will be closed as far as possible. - There are no MRF activities carried out outside of the MRF building. - Waste will be treated on a first-in, first-out basis, with RDF, fines and residual waste removed within a maximum of 72 hours from receipt. However, typically waste will be turned around within one working day. - Waste stockpile/bay limits will continue to be adhered to. - Waste acceptance will be carried out in accordance with Valencia's strict Waste Acceptance Procedures to ensure only suitable wastes are accepted to the MRF for treatment. - Daily site inspections will be undertaken including housekeeping checks and checks for odour. - Staff will be cognisant of potential odour issues. - No putrescible waste will be treated. - In the event that malodorous waste is erroneously accepted into the MRF, it will be redirected to the landfill. - The measures and management techniques outlined in the approved Odour Management Plan will continue to be implemented at the MRF. - Staff will undertake training of the Odour Management Plan	Low
Dust	Local residents, local businesses	Airbourne, windblown	Medium	Nuisance to local residents and business, potential harm to health	- The increase in annual waste throughput to the MRF will be managed in the same manner and principals as the MRF currently operates to. - Waste will be stored and treated inside the MRF building. The building benefits from fast acting roller shutter doors, limiting escape of dust. Doors will be closed as far as possible. - Site roads will be maintained and swept as necessary. Frequency will be increased if necessary, especially on haul routes. - A wheel wash is available on site and will be utilised as needed. - Dust will be dampened down during dry weather if required. - Plant will be properly serviced and maintained in accordance with manufacturers recommendations to minimise emissions. - Staff will be cognisant of potential dust issues. - The site will operate in accordance with an approved Dust Management Plan.	Low

HAZARD	RECEPTOR	PATHWAY	INITIAL RISK RATING	CONSEQUENCE	CONTROL MEASURES	RESIDUAL RISK WITH CONTROL MEASURES IN PLACE
Noise	Local residents, local businesses	Airbourne	Low	Disturbance to local residents	- Sorting and screening waste treatment activities will be carried out inside the MRF building only, which provides a degree of noise attenuation. - Machinery will be maintained and serviced and turned off when not in use. - Good traffic management is implemented around the site to minimise reversing and idling. - Staff will be cognisant of potential noise issues. - The MRF will operate in accordance with the approved Noise Management Plan.	Low
Litter	Local residents, local wildlife	Windblown	Medium	Loss of amenity, nuisance, potential harm to wildlife	- All vehicles transporting waste loads to the MRF to be sheeted or enclosed. - Waste will be stored and treated inside the MRF building. The building benefits from fast acting roller shutter doors, which will be closed as far as possible during unloading of waste. - Litter patrols will increase to a minimum of once daily to inspect the site for litter. - Any litter will be collected daily following site inspection, and placed in the appropriate bay inside the building.	Low
Emissions to Groundwater	Groundwater beneath the site	Infiltration through soils/ground	Medium	Pollution of groundwater	- Waste storage and treatment areas are fitted with impermeable surfacing and sealed drainage to prevent fugitive emissions. - Waste is stored and treated inside the MRF building minimising rainwater infiltration. - In the event of a fire, measures in place to contain potentially contaminated firewater. - Liquids (e.g. oil for plant maintenance, fuel for plant operation) stored in appropriate containers with secondary containment.	Low
Emissions to Surface Water	Local water courses potential to reach River Gipping	Infiltration through the ground or run-off direct to surface water/drains from leakages	Low	Pollution of surface water, potential impact on protected species	- Waste storage and treatment areas indoors and provided with impermeable surfacing and sealed drainage to prevent fugitive emissions. - In the event of a fire, measures in place to contain potentially contaminated firewater. - Sleeping policeman at entrance to prevent any liquid leaving the building. - Liquids (e.g. oil for plant maintenance, fuel for plant operation) stored in appropriate containers with secondary containment.	Low
Emission of nitrogen oxides to air	Local residents and workers	Airbourne	Low	Harm to human health	- Plant will be serviced and maintained in accordance with manufacturer's recommendations. - Compliance with Non Road Mobile Machinery (NRMM) regulations. - Where plant is replaced, lower emissions models chosen where practicable.	Low

HAZARD	RECEPTOR	PATHWAY	INITIAL RISK RATING	CONSEQUENCE	CONTROL MEASURES	RESIDUAL RISK WITH CONTROL MEASURES IN PLACE
Fire	Local residents or workers	Airbourne	Medium	Smoke poses a potential health risk (e.g. inhalation)	- Waste to be stored in bays with fire resistant bay walls and 1m headroom to minimise risk of fire spreading. - Quantity of combustible wastes stored at any one time in accordance with EA Fire Prevention Plan guidance. - Waste treated within 72 hours to avoid self-heating. - RDF and fines to be removed from site within 72 hours. - Good housekeeping with fire watch at end of day and in case of hot works. - Fire detection and suppression systems fitted in building. - The site will operate in accordance with a Fire prevention Plan.	Low
Contaminate d firewater	Groundwater beneath the site and local water courses.	Infiltration through soil or surface run-off	Medium	Pollution of groundwater or surface water	- Waste storage and treatment areas indoors and provided with impermeable surfacing and sealed drainage to prevent fugitive emissions. - Adequate firewater containment measures will be implemented as set out in the Fire Prevention Plan and in accordance with EA Fire Prevention Plan guidance.	Low
Plant breakdown / malfunction	Local residents or workers or groundwater and surface water.	Air or water pollution depending on the nature of the breakdown or malfunction	Low	Noise or pollution as a result of breakdown	- Preventative maintenance programme in place to ensure all plant and infrastructure is inspected, serviced and maintained. - Damaged plant or infrastructure taken out of service until repaired by a competent person. - Waste treatment inside building with impermeable pavement to provide containment. - Only competent, trained staff will operate machinery. - In the event that waste cannot be processed during plant breakdown, incoming waste will be diverted to an alternative permitted site until the MRF is able to safely accept waste again following any required remedial/repair work.	Low

4. Habitats Risk Assessment

4.1. Dust

Dusty emissions have the potential to damage habitats and affect sensitive species through smothering and respiratory distress. The risk of dust emissions will primarily result from the handling and treatment of wastes, as well as from the operation of mobile plant and other vehicles used to transport waste. There will be no excessively dusty loads accepted at the MRF, with waste types excluding those made up of predominantly powders and loose fibres.

The Site currently operates in accordance with an approved Dust Management Plan to ensure that dust is controlled throughout the operation. The Dust Management Plan has been updated to reflect the proposed new throughput. The measures used to control dust will continue to be implemented, including:

- Sorting and screening will be carried out inside MRF building, with doors remaining closed other than to allow vehicle access and egress
- A wheel wash is available onsite and will be used as needed
- Dusty stockpiles and site roads will be damped down if required
- Plant will be properly maintained and serviced to minimise emissions
- Site roads properly maintained and swept as necessary to prevent the build-up of dried mud and dust.

The control measures outlined in the plan will be employed to appropriately mitigate the risk of dust emissions causing cumulative impacts on nearby receptors.

4.2. Litter

Litter can be wind-blown and deposited on sensitive habitats and cause disturbance and distress to local wildlife.

Measures will be in place to prevent litter. Waste will continue to be unloaded inside the waste MRF building. The building is fitted with fast acting roller shutter doors which will, as far as possible, be kept closed except for allowing vehicle access and egress.

Waste will be stored in dedicated storage bays or containers appropriate for the waste type. Daily inspections will be made and any loose waste noted lying around will be collected and transferred to the appropriate bay or container.

Incoming and outgoing vehicles will be enclosed or have appropriate sheeting to contain any waste.

4.3. Noise and Vibration

Excessive noise and vibration can cause disturbance to sensitive species, such as birds, bats and mammals. The MRF building is located on a wider landfill site, with other waste/industrial sites nearby. As the building is in an industrial setting and the majority of habitats at least 300m away, it is considered unlikely that the cumulative noise from the operation will adversely impact local habitats and species.

The MRF treatment operations will continue to take place inside a building with doors closed other than to allow vehicles access and egress. The building will provide attenuation of noisy emissions from the MRF plant and equipment.

Plant and machinery will be properly maintained and serviced in accordance with the manufacturer's recommendations.

Site vehicle reversing and idling will continue to be minimised as far as possible.

It is deemed unlikely that the increase in throughput will result in noise disturbance to the identified habitats as a result of the operations. Nevertheless a Noise Impact Assessment has been prepared which concluded that the proposed activities do not pose a significant risk of noise. A Noise Management Plan has also been prepared to support the outcomes of the Noise Impact Assessment.

4.4. Emissions to Water

There are no point source emissions to water from the operation. Water for fire control purposes will be stored within firewater storage tanks. Firewater from extinguishment of any on site fire will be contained on the site and tankered to an appropriately permitted facility for treatment.

The building has an impermeable concrete floor which is designed to contain liquid from wastes. In the event of a fire the building floor footprint can contain up to 392m³ of firewater.

Any fuels stored on site will be stored within double-bunded containers. Spill-kits will be available nearby which site operatives will be trained to use in case of spillages.

These measures provide high levels of protection, preventing harmful emissions to surface water or groundwater. The risk of contaminants reaching the SSSI or other protected habitats via the water environment is considered to be very low.

4.5. Point Source Emissions to Air

There are no point source emission to air associated with the MRF activities.

4.6. Site Management

The MRF will continue to be managed in accordance with the existing procedures. This includes daily site inspections around the outside of the MRF along with site roads and site entrance, and periodical monitoring throughout the day for emissions of dust, litter, odour, noise.

The site will be operated in accordance with a formal Environmental Management System which has been developed in line with Environment Agency guidance. Standard Operating Procedures will be in place to ensure that waste materials are handled appropriately and safely.

The site plant and infrastructure will be subject to regular inspection, servicing and maintenance to ensure that it remains fit for purpose and all emissions are prevented or controlled.

The Site's Technically Competent Manager will be in attendance for at least the minimum required TCM attendance time.